

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 October 2005 (06.10.2005)

PCT

(10) International Publication Number
WO 2005/092422 A1

(51) International Patent Classification⁷: **A61M 25/01,**
25/00

PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

(21) International Application Number:
PCT/IE2005/000031

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

(22) International Filing Date: 24 March 2005 (24.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
S2004/0201 26 March 2004 (26.03.2004) IE

(71) Applicant (*for all designated States except US*):
**BRIVANT RESEARCH & DEVELOPMENT LIM-
ITED** [IE/IE]; Unit 4, Westlink Commercial Park,
Oranmore, Galway (IE).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **LUPTON, Henry,**
William [IE/IE]; Minehill House, Renville West, Oran-
more, County Galway (IE). **BRUZZI, Mark** [IE/IE]; Shan-
talla Place, Galway (IE).

(74) Agent: **F.F. GORMAN & CO.**; 15 Clanwilliam Square,
Dublin 2 (IE).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,

Declaration under Rule 4.17:

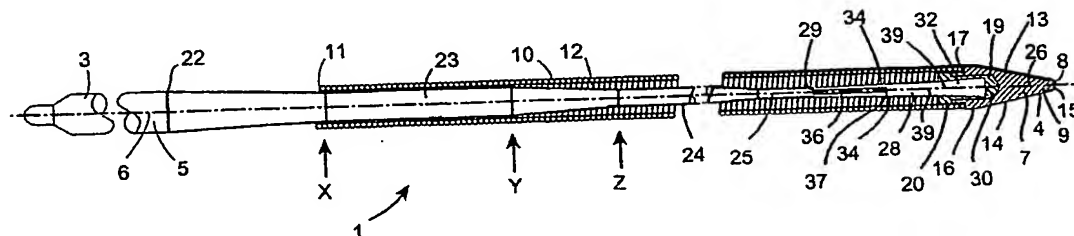
— as to applicant's entitlement to apply for and be granted
a patent (Rule 4.17(ii)) for the following designations AE,
AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE,
EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA,
ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ,
NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT,
BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK,
TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG)

Published:

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: A GUIDE WIRE FOR USE IN RE-CANALISING A VASCULAR OCCLUSION IN A HUMAN OR ANIMAL SUB-
JECT



(57) Abstract: A guide wire (1) for re-canalising a vascular occlusion comprises a core wire (5) which terminates at its distal end (4) in a terminal member (7) for opening the occlusion. A helical coil sleeve (10) extends around the core wire (5) from the terminal member (7) to a location (11) along the core wire (5). The terminal member (7) defines first and second planar surface portions (13, 14) which converge towards a distal transversely extending leading edge portion (8). As the terminal member (7) is urged through the vascular occlusion, the first and second surface portions (13, 14) act on the occlusion to form an opening therethrough. A distal portion (28) of the core wire (5) is of spade-like configuration for facilitating bending thereof for directing the terminal member (7) out of a central major plane (35) defined by the distal portion (28) for facilitating aligning of the terminal member (7) with a branched vessel of the vascular system.

BEST AVAILABLE COPY